

EXPLORING LIGHT 8



PURPOSE: To explore how the energy in light is changed into heat.

MATERIALS: 5 thermometers
 1 piece of black paper (15 x 15 cm)*
 1 piece of yellow paper (15 x 15 cm)*
 1 piece of white paper (15 x 15 cm)*
 1 piece of bright blue paper (15 x 15 cm)*
 1 piece of bright red paper (15 x 15 cm)*
 Tape*
 Bright light or sunny day* *not in kit

HYPOTHESIS: Read the procedure. Record what you think will happen.

- PROCEDURE:**
1. Fold the pieces of paper in half and tape the sides and one end together to make pouches.
 2. Record the temperature of each thermometer on the chart below.
 3. Put one thermometer face up into each pouch. Place the pouches in the sun or under a bright light (about 0.5 meter away).

DATA: Record the temperature of each thermometer after five minutes and ten minutes.

CONCLUSIONS: Which color paper absorbed the most light energy and turned it into heat?

Which color paper reflected the most light energy?

Do your results support what you have learned about light energy?

Color of Paper	Temperature Beginning		Temperature 5 minutes		Temperature 10 minutes		Total Change in Temperature	
	°F	°C	°F	°C	°F	°C	°F	°C
White								
Black								
Red								
Yellow								
Blue								